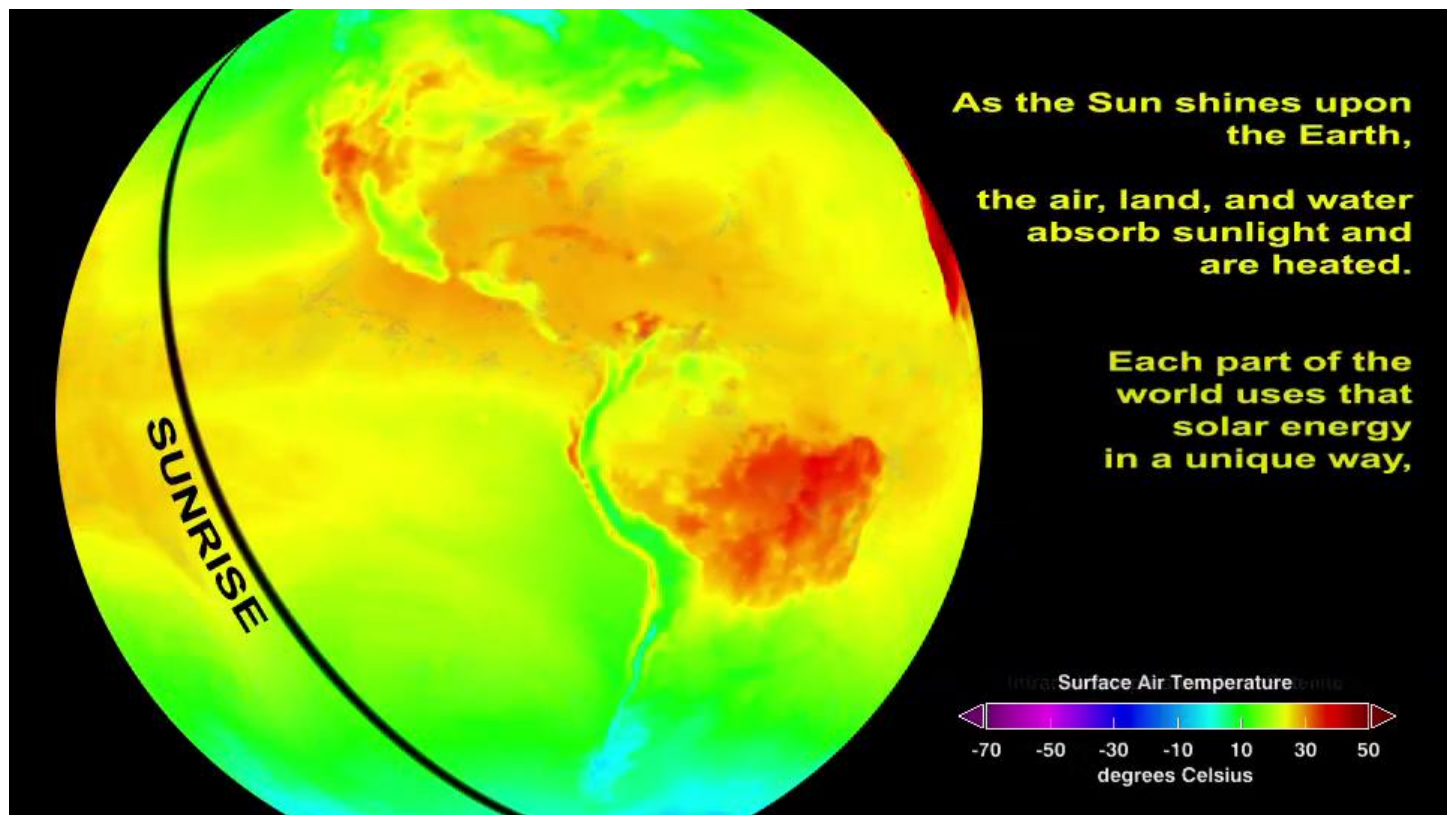


My NASA Data - Mini Lesson

Energy and Matter: Water Cycle: Heating the Ocean (2012)



Mini Lesson

Review the NASA Video below.

Answer the following questions:

1. What is the water cycle?
2. What drives the movement of air and water in the Earth System?
3. Where does this visualization begin in the water cycle?
4. Describe what happens to the sun's heat as you progress through the video.
5. How does the Sun and the Hydrosphere's oceans interact in this video?
6. Describe what happens in the night to the ocean with respect to energy.
7. Describe what happens to the land's temperature over the course of the day and night.

This is the first of a four-part series on the water cycle. The other videos are available online:

The Water Cycle: Following The Water:

<http://svs.gsfc.nasa.gov/cgi-bin/details.cgi?aid=10885>

The Water Cycle: Steaming The Air:

<http://svs.gsfc.nasa.gov/cgi-bin/details.cgi?aid=10883>

The Water Cycle: Watering The Land

<http://svs.gsfc.nasa.gov/cgi-bin/details.cgi?aid=10884>

Teachers who are interested in receiving the answer key, please contact MND from your school email address at mynasadata@lists.nasa.gov.

Grade Band

- [6-8](#)
- [9-12](#)

Supported NGSS Performance Expectations

- [MS-ESS2-1: Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process.](#)
- [MS-ESS2-4: Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity.](#)
- [HS-ESS1-1: Develop a model based on evidence to illustrate the life span of the sun and the role of nuclear fusion in the sun's core to release energy that eventually reaches Earth in the form of radiation.](#)
- [HS-ESS2-5: Plan and conduct an investigation of the properties of water and its effects on Earth materials and surface processes.](#)

Crosscutting Concepts

- [Systems and System Models](#)
- [Structure and Function](#)
- [Stability and Change](#)

Earth System Data Explorer

- [Daily Sea Surface Temperature \(Celsius\)](#)

Related Links

- [Water Cycle: Heating the Ocean](#)
- [The Water Cycle: Watering The Land](#)
- [The Water Cycle: Steaming The Air:](#)
- [The Water Cycle: Following The Water:](#)